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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,912	07/15/2003	Chaz Immendorf	NET-007 US	8939
23639	7590	05/19/2005		
BINGHAM, MCCUTCHEN LLP THREE EMBARCADERO CENTER 18 FLOOR SAN FRANCISCO, CA 94111-4067			EXAMINER DOAN, PHUOC HUU	
			ART UNIT 2687	PAPER NUMBER

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/620,912	Applicant(s) IMMENDORF ET AL.	
	Examiner PHUOC H DOAN	Art Unit 2687	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1, 4-11, 13-16, 20-24, 27-28, 30-33, 35-38, and 42** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Abrishami (US Pub No: 2001/0046259)** in **view of Chen (US Pub No: 2005/0089052)**.

**As to claim 1**, Abrishami discloses a method of supporting voice-band modem-to-modem (FIG. 1, items 12-1, 12-2, col. 1, par. [0010]) calls in a wireless communication system, the method comprising: detecting a call from a first modem to a second modem (col. 4, par. [0052-0053]), the modem call comprising data (col. 4, par. [0044], and [0048-0049]); terminating the modem call (col. 4, par. [0053]); demodulating the data in the terminated modem call (col. 4, par. [0044], and [0050-0056]). However, Abrishami does not specific disclose relaying the demodulated data from a near end of a wireless broadband channel to a far end of the wireless broadband channel.

Chen discloses that relaying the demodulated data from a near end of a wireless broadband channel to a far end of the wireless broadband channel (col. 11, par. [0161-0163], and col. 15, par. [0231]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the wireless broadband channel as taught by Chen to the system of Abrishami in order to providing

broadband communications including wireless broadband communications with security features.

**As to claim 4**, the combination of Abrishami and Chen further disclose the method of claim 1 further comprising: modulating the relayed data at the far end of the wireless broadband channel (col. 11, par. [0161-0163], and col. 15, par. [0231] of Chen); establishing a connection between the far end of the wireless broadband channel and the second modem (col. 11, par. [0161-0163], and col. 15, par. [0231] of Chen); and sending the modulated data to the second modem via the connection (col. 6, par. [0072] of Abrishami).

**As to claim 5**, Chen further discloses the method of claim 4 wherein the connection between the far end of the wireless broadband channel and the second modem is established when the far end of the wireless broadband channel places a modem call to the second modem (col. 8 through col. 9, par. [0123-0125]).

**As to claim 6**, Chen further discloses the method of claim 1 wherein the wireless broadband channel is not used for voice calls (col. 3, par. [0052-0053]).

**As to claim 7**, Chen further discloses the method of claim 1 wherein the wireless broadband channel is packet switched (col. 3, par. [0053]).

**As to claim 8**, Chen further discloses the method of claim 1 wherein data from multiple modem calls may be relayed over the wireless broadband channel at the same time “**simultaneous access**” (col. 3, par. [0046-0047]).

**As to claim 9**, Chen further discloses the method of claim 1 wherein the first modem is a V.90/V.34 client or server modem (col. 5, par. [0080], and col. 8, par. [0113]).

**As to claim 10**, Abrishami further disclose the method of claim 1 wherein the second modem is a V.90/V.34 client or server modem (col. 4, par. [0044-0045]).

**As to claim 11**, Chen further discloses the method of claim 1 wherein the wireless communication system is a non-line-of-sight system (col. 7, par. [0096]).

**As to claim 13**, Abrishami further discloses the method of claim 1 wherein terminating the modem call comprises answering the modem call (col. 4, par. [0049-0050]).

**As to claim 14**, Abrishami further discloses the method of claim 1 wherein the call from the first modem to the second modem is detected by a tone detector (col. 4, par. [0050-0051]).

**As to claim 15**, Chen further discloses the method of claim 1 wherein the near end of the wireless broadband channel comprises a subscriber unit or a base station (col. 7, par. [0096])

**As to claim 16**, Chen further discloses the method of claim 1 wherein the far end of the wireless broadband channel **"Fig. 1, item 70, would have any bluetooth piconet with transceiver to form a wireless network applied for far end or near end, col. 6, par. [0085]"** comprises a subscriber unit or a base station (col. 7, par. [0096]).

**As to claim 20**, this claim is rejected for the same reason as set forth in claim 16.

**As to claim 21**, this claim is rejected for the same reason as set forth in claim 4.

**As to claim 22**, Abrishami discloses wherein the wireless communication system is configured to: detect a call from the first modem to the second modem (col. 4, par. [0050-0053], the modem call comprising data; terminate the modem call (col. 4, par. [0052-0053]); demodulate the data in the terminated modem call (col. 4, par. [0054-0056])

However, Abrishami does not specific disclose a wireless communication system comprising: one or more wireless voice channels, the one or more wireless voice channels comprising a near end and a far end; one or more wireless broadband channels, the one or more wireless broadband channels comprising the same near end and the same far end as the one or more wireless voice channels; a first modem, the first modem being linked to the near end of the one or more wireless voice and broadband channels; and a second modem, the second modem being linked to the far end of the one or more wireless voice and broadband channels and relay the demodulated data from the near end of at least one of the one or more wireless broadband channels to the far end of the at least one wireless broadband channel.

Chen discloses a wireless communication system comprising: one or more wireless voice channels, the one or more wireless voice channels comprising a near end and a far end (col. 15, par. [0231]); one or more wireless broadband channels, the one or more wireless broadband channels comprising the same near end and the same

far end **"Fig. 1, item 70, would have any bluetooth piconet with RF transceiver to form a wireless network applied for far end or near end, col. 6, par. [0085]"** as the one or more wireless voice channels (col. 16, par. [0237-0240]); a first modem, the first modem being linked to the near end of the one or more wireless voice and broadband channels (col. 8, par. [0111-0113], and col. 15, par. [0231]); and a second modem, the second modem being linked to the far end of the one or more wireless voice and broadband channels and relay the demodulated data from the near end of at least one of the one or more wireless broadband channels to the far end of the at least one wireless broadband channel (col. 15, par. [0231], and col. 16. par. [0237-0240]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the wireless broadband channel as taught by Chen to the system of Abrishami in order to providing broadband communications including wireless broadband communications with security features.

**As to claim 23**, this claim is rejected for the same reason as set forth in claim 4.

**As to claim 24**, this claim is rejected for the same reason as set forth in claim 5.

**As to claim 27**, this claim is rejected for the same reason as set forth in claim 6.

**As to claim 28**, this claim is rejected for the same reason as set forth in claim 7.

**As to claim 30**, this claim is rejected for the same reason as set forth in claim 8.

**As to claim 31**, this claim is rejected for the same reason as set forth in claim 9.

**As to claim 32**, this claim is rejected for the same reason as set forth in claim

**As to claim 33**, this claim is rejected for the same reason as set forth in claim 11.

**As to claim 35**, Abrishami further discloses the system of claim 22 wherein the modem call is terminated by answering the call from the first modem **"See detail Fig. 3, terminated by answering the call from either way of Modem"** (col. 4, par. [0049-0050]).

**As to claim 36**, this claim is rejected for the same reason as set forth in claim 14.

**As to claim 37**, this claim is rejected for the same reason as set forth in claim 15.

**As to claim 38**, this claim is rejected for the same reason as set forth in claim 16.

**As to claim 42**, this claim is rejected for the same reason as set forth in claim 4.

3. Claims **2-3, 17-19, 25-26, 29, 39-41** are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrishami in view of Chen as applied to claim 1 above, and further in view of **Preston (US Pub No: 2004/0125824)**.

**As to claim 2**, the combination of Abrishami and Chen disclose the method of claim 1 further comprising: determining a data transfer rate of the modem call (col. 6, par. [0072] of Abrishami); passing the modem call through a voice coder when the data transfer rate of the modem call is less than or equal to a threshold rate (col. 6, par.



[0072-0073] of Abrishami). However, Abrishami and Chen do not specific disclose that sending the low-rate modem call through a dedicated wireless voice channel.

Ccc discloses that sending the low-rate modem call through a dedicated wireless voice channel (col. 8, par. [0122-0123]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a dedicated wireless voice channel as taught by Preston to the system of Abrishami and Chen in order to prevent the network delay in term of the voice channel.

**As to claim 3**, Chen further disclose the method of claim 2, wherein the dedicated wireless voice channel is circuit-switched (col. 3, par. [0052]).

**As to claim 17**, this claim is rejected for the same reason as set forth in claim 2.

**As to claim 18**, this claim is rejected for the same reason as set forth in claim 3.

**As to claim 19**, Chen further discloses the method of claim 17, wherein the bandwidth of the dedicated wireless voice channel is the data throughput supported by the dedicated wireless voice channel **"Throughput is a bandwidth, DSL/ADSL modem is a broadband, VoIP using the broadband supported voice and data"** (col. 11, par. [0158-0162]).

**As to claim 25**, this claim is rejected for the same reason as set forth in claim 2.

**As to claim 26**, Abrishami further discloses the system of claim 25 wherein the wireless voice channel is dedicated to the low-rate modem call (col. 3, par. [0041]).

**As to claim 29**, this claim is rejected for the same reason as set forth in claim 3.

**As to claim 39**, this claim is rejected for the same reason as set forth in claim 2.

**As to claim 40**, this claim is rejected for the same reason as set forth in claim 26.

**As to claim 41**, this claim is rejected for the same reason as set forth in claim 19.

4. Claims **12, and 34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrishami in view of Chen as applied to claim 1 above, and further in view of **Banerjea (US Pub No: 2004/0120412)**.

**As to claim 12**, Abrishami and Chen disclose all the limitation in claim 1. However, Abrishami and Chen do not specific disclose the method of claim 1 wherein the wireless communication system uses Orthogonal Frequency Division Multiplexing.

Banerjea discloses the method of claim 1 wherein the wireless communication system uses Orthogonal Frequency Division Multiplexing (col. 2, par. [0015-0016]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system uses Orthogonal Frequency Division Multiplexing as taught by Banerjea to the system of Abrishami and Chen in order to extracted lower rate channel from a higher rate channel.

**As to claim 34**, this claim is rejected for the same reason as set forth in claim 12.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dyke (US Patent No: 6,262,991) discloses "Communication system architecture, infrastructure exchange and method of operation".

Struhsaker (US Pub No: 2002/0141355) discloses "Wireless access system and associated method using multiple modulation formats in TDD frames according to subscriber service type".

Beierle (US Patent No: 5,351,234) discloses "System for integrated distribution of switched voice and television on coaxial cable".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC H DOAN whose telephone number is 571-272-7920. The examiner can normally be reached on 9:30 AM - 6:30 PM.

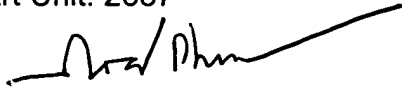
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER G KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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05/05/05



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PRIMARY EXAMINER